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Heart Failure

BODY MASS INDEX IN YOUNG ADULT MEN AND RISK OF CONGESTIVE HEART FAILURE BEFORE THE AGE OF 55 YEARS: A DANISH 33-YEAR FOLLOW-UP STUDY

Poster Contributions
Poster Sessions, Expo North
Sunday, March 10, 2013, 3:45 p.m.-4:30 p.m.

Session Title: Role of Comorbidities in Heart Failure: From Diabetes, Pulmonary Disease, Hypertension to Atrial Fibrillation
Abstract Category: 15. Heart Failure: Clinical
Presentation Number: 1263-277

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Background: The association between body mass index (BMI) in young adults and long-term risk of congestive heart failure (CHF) remains unclear. We examined this association.

Methods: We conducted a population-based cohort study of 6,502 males born in 1955 and eligible for conscription in Northern Denmark. CHF diagnoses were obtained from the Danish National Registry of Patients, which was initiated in 1977. Thus, we chose to begin follow-up at the 22nd birthday of each subject and continue until death, emigration, or 55 years of age, whichever came first. Using regression analyses, we calculated cumulative risks and hazard ratios (HRs) with 95% confidence intervals (CIs) associating BMI with congestive heart failure, adjusting for cognitive test score and years of education.

Results: Compared with 1.2% of men of normal weight, 2.6% of overweight men and 3.4% of obese men were diagnosed with congestive heart failure before the age of 55 years. With normal weight (BMI: 18.5 to <25.0 kg/m2) as the reference, the adjusted HR was 2.39 (95% CI: 1.32-4.35) for overweight (BMI: 25.0 to <30.0 kg/m2) and 3.22 (95% CI: 0.99-10.48) for obesity (BMI: ≥30 kg/m2). The adjusted HR associated with one unit increase in BMI was 1.12 (95% CI: 1.06-1.18).

Conclusions: For men, overweight and obesity in young adulthood are strong risk factors for CHF before the age of 55 years.